CLAIM SET AS AMENDED

1.   (currently amended) Method of transmitting data over a bidirectional radio channel, the method comprising: where

dividing digital data that is to be transmitted is divided into individual data packets according to a first data transmission protocol; (DÜPHE), then

dividing, at the two a transmitting and receiving station stations of the bidirectional radio channel, the data is divided according to a second data transmission protocol (DÜP) into individual data packets; and which are transmitted

transmitting the individual data packets alternately forward and in reverse between transmitting and receiving stations over the radio channel by the simplex method, characterized in that

wherein, at each transmitting and receiving station (A or B) [[the]] a number, and/or [[the] a length, and/or [[the]] a priority, and/or [[the]] a type of the individual data packets generated by the first data transmission protocol (DÜPHE) and sent to the respective transmitter of the station is determined as [[the]] a data packet identifier, and the length of the data packets generated by the second data transmission protocol (DÜP) is determined in at least one of the transmitting and receiving

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stations as a function of these data packet identifiers ~~in the sense of~~ <u>for</u> optimum utilization of radio channel capacity.

2. (currently amended) The method according to claim 1, ~~characterized in that~~ <u>wherein the</u> data packet <u>identifier is</u> ~~identifiers are~~ determined at [[one]] <u>a</u> sending and receiving station ~~(e.g., A),~~ and the data packet length is determined as a function thereof at the same station.

3. (currently amended) The method according to claim 1, ~~characterized in that~~ <u>wherein the</u> data packet <u>identifier</u> ~~identifiers~~ determined at <u>a</u> [[one]] transmitting and receiving station ~~(e.g., A) are~~ <u>is</u> transmitted to the remote station ~~(e.g., B) where they are~~ <u>and is</u> used to influence the length of the data packets in the second data transmission protocol ~~(DUP)~~.

4. (currently amended) The method according to claim 1, ~~characterized in that~~ <u>wherein</u> [[the]] data packet identifiers determined at both transmitting and receiving stations ~~(A and B)~~ are transmitted to the respective remote station, where they are used to set the length of the data packets of the second data transmission protocol ~~(DUP)~~.

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5. (new) A transmission system comprising:

a first transmitting/receiving station for transmitting and receiving data to and from a second transmitting/receiving station via a shortwave radio channel having a fixed data rate,

wherein the first and second transmitting/receiving stations each:

receive inputted data packets that are based on a first data protocol, wherein:

data packet identifiers of the inputted data packets, which are based on the first data protocol, are determined, the data packet identifiers identifying a number, a length, a priority, or a type of the data packets; and

second data packets are formed based on a second data protocol and on the basis of the data packet identifiers, the second data packets being transmitted over the shortwave radio channel, and

wherein the first and second transmitting/receiving stations adjust a frequency of switching between transmitting and receiving the second data packets on the basis of the data packet identifiers of the inputted data packets.

6. (new) The transmission system according to claim 5, wherein the first data protocol is a TCP/IP protocol.